



Overcoming Technological Barriers to Instruction: Situating Gen Z Students as Reverse Mentors

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In response to a changing higher education landscape, this essay presents an argument for utilizing reverse mentoring to solve technological problems in the academy. Specifically, the essay argues that 1) Gen Z students are uniquely positioned to capitalize on reverse mentoring programs and 2) instructional communication is an important framework for future reverse mentoring research.

Keywords: gen Z, reverse mentoring, instructional communication, technology training, pedagogy

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INTRODUCTION

The culture of the higher education classroom is changing, and perhaps there is no more influential source of such change than the 2020 outbreak of the SARS-CoV-2 virus (COVID-19). The shifts in policy and practice that have been implemented as a result – including an abrupt movement to online learning and hastened applications of digital technologies (Carey, 2020; Dhawan, 2020) – influence how pedagogy is enacted and learning occurs. These shifts have also made readily apparent the differences between today's students, who grew up surrounded by technology and adapt to it quickly (i.e., digital natives), and instructors, who may be moving to distance learning modalities or using digital technologies on short notice and without proper training. Many find themselves ill-equipped for the demands of the new educational landscape, which can have an adverse effect on students' learning experiences. Thus, to better prepare instructors to teach with digital technologies and within digital spaces, as well as to combat the possibility of technological ineffectiveness, this essay draws on the concept of *reverse mentoring* (e.g., Chaudhuri and Ghosh, 2012; Murphy, 2012) to present a framework for leveraging the technology-rich culture of the dominant student cohort (i.e., Gen Z; Seemiller and Grace, 2016) as a source of knowledge and training for instructors.

DEFINING REVERSE MENTORING

Contrary to traditional mentoring, reverse mentoring is “an inverted type of inter-generational mentoring relationship where the seasoned more experienced executive gets into the shoes of mentee and the younger, less experienced employee becomes the mentor by providing required skills, knowledge, and support to experienced adults” (Chaudhuri, 2019, p. 66). The public sector has put this idea into practice for over two decades, tracing the origins of the concept to former CEO of General Electric, Jack Welch (Greengard, 2002). As a result, iterations of reverse mentoring have been implemented across various organizations (e.g., Proctor and Gamble; Chaudhuri and Ghosh, 2012) and expanded as conceptually similar constructs (e.g., bidirectional learning; Chen, 2018). At its core, reverse mentoring features a cross-generational relationship and produces reciprocal outcomes for both individuals. Mentors (i.e., less experienced employees) receive leadership skills, organizational knowledge, and social capital, while mentees (i.e., more seasoned

employees) gain content knowledge, technical skills, and exposure to generational worldviews (e.g., perspectives on diversity and inclusion), among other things (Murphy, 2012).

Scholars interested in teacher training have embraced this idea, with several studies framing skill development through reverse mentoring as a formalized, instructional process. For example, Leh (2005) implemented and assessed a reverse mentoring program between graduate students and university professors on the premise that it is easier for younger generations to adapt to technology and its various forms. Similar technology mentoring programs have been conducted at universities without the formal labelling of reverse mentoring, including at Iowa State University, New Mexico State University, and the University of Texas at Austin (Chuang et al., 2003). In any case, reverse mentoring presents a model whereby students focus on the opportunities afforded by their strengths rather than their deficiencies (Morris, 2017; Zauschner-Studnicka, 2017). The extant literature also suggests that these strengths can be characterized through generational divides that exist as a result of increases in access to and comfort with new technologies (e.g., Cotugna and Vickery, 1998).

THE NEW DOMAIN OF REVERSE MENTORING: GEN Z

Initially, reverse mentoring referred to differences between millennials just entering the workforce and Baby Boomers struggling to stay engaged in their respective work roles. However, a new and more technologically competent group of workers is preparing to enter the job market: Generation Z (Seemiller and Grace, 2016). Gen Z, or those born after 1995, has a unique attachment to technology. They have been profoundly shaped by it, and they are highly accustomed to interacting in digital spaces. Reverse mentoring can help students learn to disseminate their technological expertise while simultaneously aiding instructors who may be unfamiliar or out-of-touch with technologies that appeal to today's students.

Moreover, reverse mentoring should benefit Gen Z students independent of their technical skills. Seemiller and Grace (2017) argued that their "digitally infused social DNA plays a role in what makes Generation Z unique, but do not be mistaken in thinking that being digitally savvy is all that defines them" (p. 22). This group of students craves opportunities to practically apply concepts in a way that can make a difference in the lives of others (Chicca and Shellenbarger, 2018); reverse mentoring should highlight their capability to influence others with even their most basic technological skills (Breck et al., 2018). Collectively, reverse mentoring presents educators with an opportunity to adapt and create programs that align with the characteristics, needs, and values of this generation.

It is also important to recognize that having technological expertise is necessary but not sufficient for reverse mentoring; effective *communication* is the means through which the goals of the relationship are fulfilled (Chaudhuri and Ghosh, 2012). Reverse mentoring differs from traditional mentoring in that it is designed to solve a problem (Harvey et al., 2009). In education,

the COVID-19 pandemic has manifested this problem as a lack of instructor technological competence and preparedness to use digital technologies. Gen Z students must be able to not only demonstrate the value of various technologies, but they must also use instructional communication to effectively *train* mentees to use them. As such, instructional communication – communication centered on the investigation of the interaction that occurs in pursuit of learning goals across settings – may elucidate the behaviors and conditions most conducive to the development of specific competencies in the reverse mentoring process (e.g., using applications effectively, learning social media; Clarke et al., 2019).

INSTRUCTIONAL COMMUNICATION AND REVERSE MENTORING

Reverse mentoring flips the traditional instructional hierarchy by allowing mentors (i.e., Gen Z students) to assume the role of *teacher* while mentees (i.e., faculty) assume the role of *learner*. Despite this reversal, mentors and mentees still rely on instructional communication to create meaning and facilitate successful interactions. Consider Mottet et al.'s (2006) Rhetorical and Relational Goals Theory (RRGT). RRG T proposes that the reverse mentoring relationship represents an instructional space where interaction is based on the needs and goals of mentors and mentees. Both individuals have *relational* goals related to positive working relationships and concerns for the other's well-being. They also have *rhetorical* goals related to the effective dissemination of knowledge, clear instruction, and information retention. Instructors make behavioral choices in an effort to meet these goals, and when they are fulfilled, more learning can occur (Mottet et al., 2006).

An RRG T perspective may provide important insight into the communicative behaviors most important to the development of the target competencies in context. For example, several studies have investigated the prioritization of instructor behaviors that students feel put them in the best position to learn (e.g., Goldman et al., 2017). Knoster et al. (2020) found that medical students preferred instructor behaviors that met their rhetorical goals (e.g., clarity) during the beginning stages of their education, but their relational needs became more important as they progressed to more clinical contexts. Given the nature of the reverse mentoring relationship, it seems reasonable that relational behaviors that help mentors and mentees overcome barriers related to age, status, or experience may play as much, if not more, of a role than rhetorical goals related to the completion of specific tasks.

In addition, RRG T seems especially relevant given the need for mentors to be trained to communicate their knowledge effectively. Applying RRG T to the reverse mentoring context could reveal mentees' behavioral preferences, which could subsequently be taught to student mentors to better prepare them for successful experiences. Scholars have suggested that such training would be beneficial to mentors, who must utilize relational communication behaviors to establish high quality relationships which will keep instructors engaged in the program (Chaudhuri and Ghosh, 2012). Applying RRG T to a

reverse mentoring interaction in education would ultimately help researchers and practitioners better understand the communicative messages and contextual conditions necessary for learning through this type of program.

CONCLUSION

As the cultural landscape of higher education continues to change, educators should be ready to adapt in practical and feasible ways. The COVID-19 pandemic has only expedited the need for instructors to develop their technological competence, and reverse mentoring as an academic and

theoretical concept presents an exciting opportunity to do so while paying attention to students' individual (and culturally defined) needs. Perhaps more than any other generation, Gen Z students are prepared to succeed in a reverse mentoring program. Pedagogy may have been turned on its head, but maybe a solution to the resulting problems lies in doing the same thing to traditional mentoring roles.

AUTHOR CONTRIBUTIONS

The author confirms being the sole contributor of this work and has approved it for publication.

REFERENCES

- Breck, B. M., Dennis, C. B., and Leedah, S. N. (2018). Implementing reverse mentoring to address social isolation among older adults. *J. Gerontol. Soc. Work* 61, 513–525. 10.1080/01634372.2018.1448030
- Carey, K. (2020). Is everybody ready for the big migration to online college? Actually, no. *The New York Times*. Available at: <https://www.nytimes.com/2020/03/13/upshot/coronavirus-online-college-classes-unprepared.html>.
- Chaudhuri, S., and Ghosh, R. (2012). Reverse mentoring: a social exchange tool for keeping the boomers engaged and millennials committed. *Hum. Resour. Dev. Rev.* 11, 55–76. 10.1177%2F1534484311417562
- Chaudhuri, S. (2019). Perspectives in HRD—reverse mentoring: hallmarks for implementing an intergenerational intervention. *New Horizons Adult Educ. Human Res. Devel.* 31, 65–71. 10.1002/nha3.20256
- Chen, Y. C. (2018). Enhancing teaching competence through bidirectional mentoring and structured on-the-job training model. *Mentor. Tutor.: Partnership Learning* 26, 267–288. 10.1080/13611267.2018.1511948
- Chicca, J., and Shellenbarger, T. (2018). Connecting with generation Z: approaches in nursing education. *Teach. Learn. Nurs.* 13, 180–184. 10.1016/j.teln.2018.03.008
- Chuang, H. H., Thompson, A., and Schmidt, D. (2003). Faculty technology mentoring programs: major trends in the literature. *J. Comput. Teach. Educ.* 19 (4), 101–106.
- Clarke, A. J., Burgess, A., van Diggele, C., and Mellis, C. (2019). The role of reverse mentoring in medical education: current insights. *Adv. Med. Educ. Pract.* 10, 693–701. 10.2147%2FAMEP.S179303
- Cotugna, N., and Vickery, C. E. (1998). Reverse mentoring: a twist to teaching technology. *J. Acad. Nutr. Diet.* 98, 1166–1168. doi:10.1016/S0002-8223(98)00270-3
- Dhawan, S. (2020). Online learning: a panacea in the time of COVID-19 crisis. *J. Educ. Technol. Syst.* 49, 5–22. 10.1177%2F0047239520934018
- Goldman, Z. W., Cranmer, G. A., Sollitto, M., LaBelle, S., and Lancaster, A. L. (2017). What do college students want? A prioritization of instructional behaviors and characteristics. *Commun. Educ.* 66, 280–298. 10.1080/03634523.2016.1265135
- Greengard, S. (2002). Moving forward with reverse mentoring. *Workforce* 81, 15.
- Harvey, M., McIntyre, N., Heames, J. T., and Moeller, M. (2009). Mentoring global female managers in the global marketplace: traditional, reverse, and reciprocal mentoring. *Int. J. Hum. Resour. Manag.* 20, 1344–1361. 10.1080/09585190902909863
- Knoster, K., Goodboy, A., Martin, M., and Thomay, A. (2020). What matters most? A prioritization of medical students' preferences for effective teaching. *Communication Education*. 10.1080/03634523.2020.1841254
- Leh, A. S. C. (2005). Lessons learned from the service learning and reverse mentoring in faculty development: a case study in technology training. *J. Technol. Teach. Educ.* 13, 25–41.
- Morris, L. V. (2017). Reverse mentoring: untapped resource in the academy? *Innovat. High. Educ.* 42, 285–287. 10.1007/s10755-017-9405-z
- Mottet, T. P., Frymier, A. B., and Beebe, S. A. (2006). "Theorizing about instructional communication," in *Handbook of instructional communication: rhetorical and relational perspectives*, Editors T. P. Mottet, V. P. Richmond, and J. C. McCroskey, Boston: Allyn & Bacon, 255–282.
- Murphy, W. (2012). Reverse mentoring at work: fostering cross-generational learning and developing millennial leaders. *Hum. Resour. Manag.* 51, 549–573. 10.1002/hrm.21489
- Seemiller, C., and Grace, M. (2016). *Generation Z goes to college*. San Francisco, CA: Jossey-Bass.
- Seemiller, C., and Grace, M. (2017). Generation Z: educating and engaging the next generation of students. *About Campus* 22 (3), 21–26. 10.1002/abc.21293
- Zauschner-Studnicka, S. (2017). A model for reverse-mentoring in education. *International J. Social, Behavioral, Educational, Economic, Business and Industrial Engineering* 11, 546–553. 10.5281/zenodo.1129019

Conflict of Interest: The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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